

Abstract of the Disclosure

Provided is a system and method for terrestrial digital
broadcasting service using a single frequency network without
5 additional equipment. The system and method synchronizes
input signals into transmitting stations by inserting a
transmission synchronization signal into a header of TS
periodically, and solves the problematic ambiguity of the
trellis encoder by including a trellis encoder switching unit
10 separately and initializing a memory of the trellis encoder.
The terrestrial digital broadcasting system includes: a
broadcasting station for multiplexing video, voice and
additional signals into transport stream (TS) and transmitting
the TS to the transmitting stations and a transmitting
15 stations for receiving the TS and broadcast the TS to
receiving stations through a single frequency network